

READY, SET, GO!

Your Personal Wildfire Action Plan



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Wildfire Action Plan

Saving Lives and Property
through Advance Planning



Fire season is now a reality throughout the year in Colorado, which means that both firefighters and residents have to be on heightened alert for the threat of wildfire at all times.

Colorado's firefighters take every precaution to help protect you and your property from a wildfire. Residents need to do the same. Successfully preparing for a wildfire requires you to take personal responsibility for protecting yourself, your family and your property. During a major wildfire, there simply will not be enough fire engines or firefighters to defend every home, so residents must become part of the solution.

If your home borders or sits with a mile or two of a natural area, what firefighters call the Wildland Urban Interface, you are at risk from a wildfire. And, if you live within one mile of a natural area, you live in the Ember Zone. Homes in the Ember Zone are at risk from wind-driven embers from a wildfire. Recent fires across the nation have resulted in entire neighborhoods being destroyed by fires started by embers, not the wildfire itself.

This publication will help guide you through the process of making your home resistant to wildfires and your family ready to leave early and safely. We call this process, "Ready, Set, Go!"

You will learn about the Ember Zone and how to retrofit your home with ignition resistant features. We'll show you the importance of having defensible space around your home and the preparations you need to make so you can leave early, evacuating well ahead of the fire.

Fire is, and always has been, a natural part of the beautiful area where we've chosen to live. Wildfires, fueled by a build-up of dry vegetation and driven by hot, dry winds, are extremely dangerous and almost impossible to control. Many residents have built their homes and landscaped without fully understanding the impact a fire could have on them. This publication will help you prepare your home so you can leave early, confident that you've done everything you reasonably can to protect your home.

It's not a question of if, but when, the next wildfire will occur. That's why the most important person protecting your life and property is you. With advance planning and preparation, you can dramatically increase your safety and the survivability of your property.

Now, Get Ready, Get Set, Go!

This publication was prepared by the Fire & Life Safety Educators of Colorado, Fire Marshals Association of Colorado and Colorado State Fire Chiefs Association so that Colorado's fire departments and life safety professionals could have a common resource for educating their citizens about wildfire prevention, mitigation and reaction. Many agencies will supplement this information with programming geared specifically for their communities.

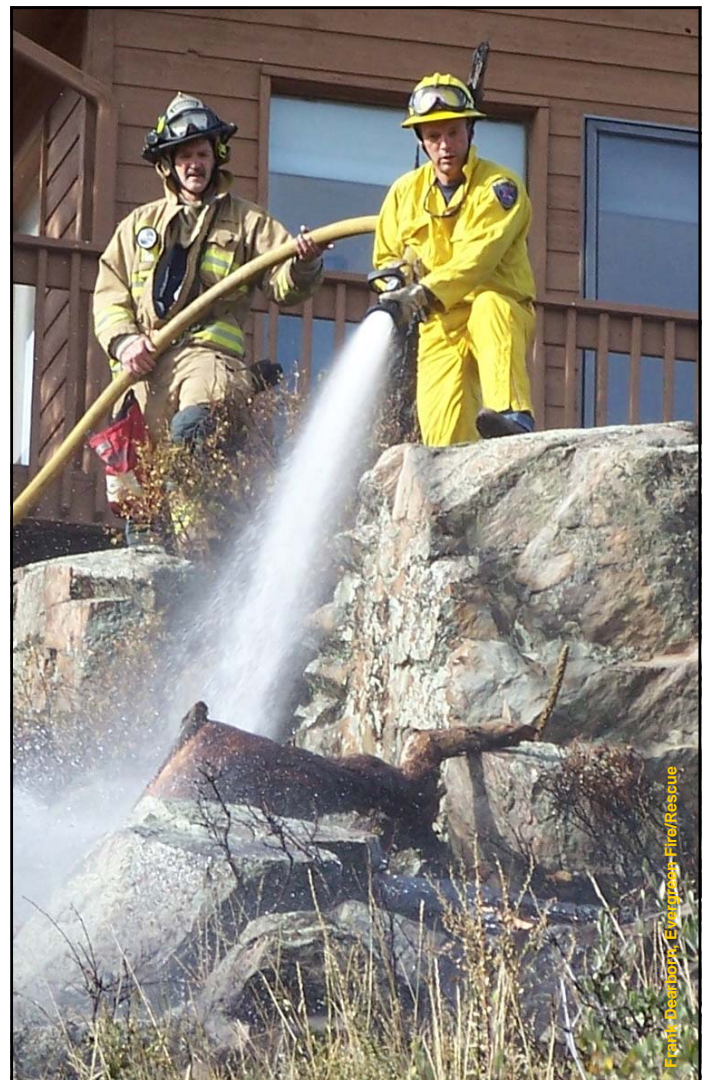
Colorado: Ready, Set, Go!
also is supported by:
Pikes Peak Wildfire Prevention Partners
West Region Wildfire Council

Living in the Wildland Urban Interface and the Ember Zone

Ready, Set, Go! begins with a house that firefighters can defend.

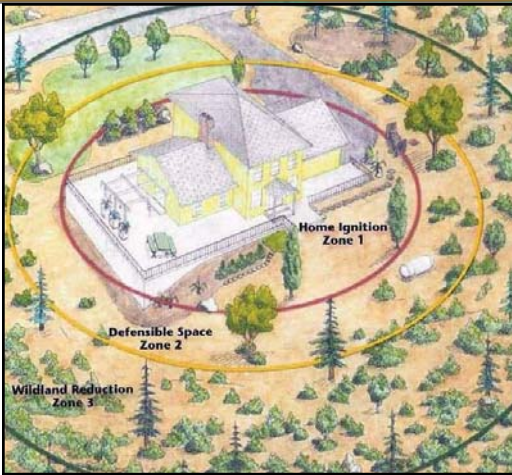
Defensible space works!

If you live next to a natural area, the Wildland Urban Interface, you must provide firefighters with the defensible space they need to protect your home. The buffer zone you create by removing weeds, brush and other vegetation helps to keep the fire away from your home and reduces the risks from flying embers.



A home within one mile of a natural area is in the Ember Zone. Wind-driven embers can attack your home. You and your home must be prepared well before a fire occurs. Ember fires can destroy homes or neighborhoods far from the actual flame front of the wildfire.

What is Defensible Space?



Defensible space is the space between a structure and the wildland area that, under normal conditions, creates a sufficient buffer to slow or halt the spread of a wildfire to the structure. It protects the home from igniting from direct flame, radiant heat and embers. Defensible space is essential for structure survivability during wildfires.

Zone 1

This zone, which consists of an area of 15 feet around the structure, features the most intense modification and treatment. This 15 feet is measured from the outside edge of the home's eaves and any attached structures, such as decks. Limit vegetation within this zone to species on Colorado's FireWise list. Do not plant directly beneath windows or next to foundation vents. Frequently prune and maintain plants in this zone to ensure vigorous growth and a low growth habit. Remove dead branches, stems and leaves.

Do not store firewood or other combustible materials in this area. Enclose or screen decks with metal screening. Extend gravel coverage under the decks. Do not use areas under decks for storage.

If ponderosas, aspens or blue spruces are growing in this zone, consider them part of the structure and extend the distance of the entire defensible space accordingly. Isolate the tree from any other surrounding trees. Prune low-lying branches (ladder fuels that would allow a surface fire to climb into the tree) and any branches that interfere with the roof or are within 10 feet of the chimney. In all other areas, prune all branches of shrubs or trees up to a height of 10 feet above ground (or 1/2 the height, whichever is the least).

Zone 2

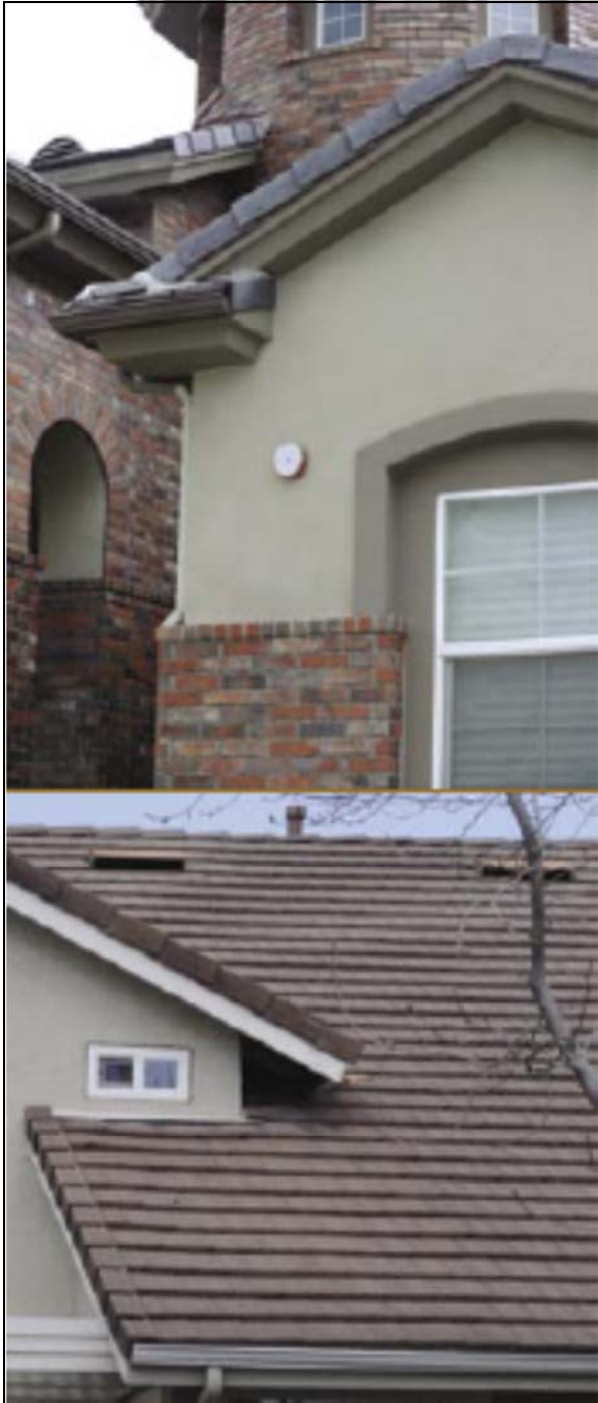
This zone features fuel reduction efforts and serves as a transitional area between Zones 1 and 3. The size of Zone 2 depends on the slope of the ground where the structure is built. Typically, the defensible space should extend *at least* 75 to 125 feet from the structure. Remove stressed, diseased, dead or dying trees and shrubs. Thin and prune the remaining larger trees and shrubs. Be sure to extend thinning along either side of your driveway all the way to your main access road. These actions help eliminate the continuous fuel surrounding a structure while enhancing property safety and the aesthetics of the property.

Zone 3

This area of traditional forest management extends from the edge of your defensible space to your property boundaries. The healthiest forest is one that has multiple ages, sizes, and species of trees where adequate growing room is maintained over time. Remember to consider the hazards of ladder fuels. A greater number of wildlife trees can remain in Zone 3. Make sure that dead trees pose no threat to power lines or fire access roads.

What is a Hardened Home?

Construction materials and the quality of the defensible space surrounding it are what gives a home the best chance to survive a wildfire. Embers from a wildfire will find the weak link(s) in your home's fire protection scheme: a small, overlooked or seemingly inconsequential factor with enormous potential consequences. However, there are measures you can take to safeguard your home from wildfire. While you may not be able to accomplish all the measures listed below, each will increase your home's, and possibly your family's, safety and survivability during a wildfire.



ROOFING

Roofs are the most vulnerable surface where embers land because they provide nooks for embers to lodge and ignite a fire. Roof valleys, open ends of barrel tiles and rain gutters are all vulnerable to ember accumulation.

EAVES

Embers can gather under open eaves and ignite exposed wood or other combustible material.

VENTS

Embers can enter the attic or other concealed spaces and ignite combustible materials through vents. Vents in eaves and cornices are particularly vulnerable, as are any un-screened vents.

WALLS

Combustible siding or overlapping materials provide surfaces and crevices for embers to nestle and ignite walls.

WINDOWS and DOORS

Embers can enter a home through gaps in doors, including garage doors. Plants or combustible storage near windows can be ignited from embers and generate enough heat to break windows and/or melt combustible frames.

BALCONIES and DECKS

Embers that collect in or on combustible surfaces or the undersides of decks and balconies can ignite that material and enter the home through walls or windows.

MORE

To harden your home further, consider protecting it with a residential fire sprinkler system. In addition to extinguishing or at least containing a fire started by an ember that enters your home as well as preventing a house fire from igniting a wildfire, it also protects you and your family throughout the year from any fire that may ignite inside.

Tour a Wildfire Ready Home

Garage: Have a fire extinguisher and tools such as a shovel, rake, bucket and hoe available for fire emergencies.

Install a solid door with self-closing hinges between the garage and living area. Install weather stripping around and under doors to prevent ember intrusion.

Store all combustibles and flammable liquids away from ignition sources.

Vents: Vents on homes are particularly vulnerable to flying embers. All vent openings should be covered with 1/8-inch or smaller mesh. Do not use fiberglass or plastic mesh because those materials can melt and burn.

Attic vents in eaves or cornices should be baffled or otherwise protected to prevent ember intrusion (mesh is not enough).

Deck/Patio: Use heavy timber or non-flammable construction material for decks.

Enclose the underside of balconies and decks with fire-resistant materials to prevent embers from blowing underneath.

Remove combustible items such as baskets, dried flower arrangements and other debris as well as furniture from the deck if a wildfire approaches.

Driveways and Access Roads: Driveways should be designed to allow fire and other emergency vehicles and equipment to reach your home.

Access Roads should have a minimum 10-foot clearance on either side of the traveled section of the roadway and should allow for two-way traffic.

Ensure that all gates open inward and are wide enough to accommodate emergency equipment. Locked gates should be equipped with a Knox Box or similar entry system that can be accessed by emergency responders quickly and safely.

Trim trees and shrubs overhanging the road to a minimum of 15 feet to allow emergency vehicles to pass.

Home Site and Yard: Ensure you have at least a 100-foot radius of defensible space (treated vegetation) around your home. Note that even more treatment may be needed for homes in severe hazard areas. Look beyond what you own to determine the impact a common slope or neighbors' yard will have on your property during a wildfire.

Cut dry weeds and grass before noon when temperatures are cooler to reduce the chance of sparking a fire.

Landscape with fire-resistant plants that have a high moisture content and are low-growing.

Keep woodpiles, propane tanks and combustible materials away from your home and other structures such as garages, barns and sheds.

Ensure that trees are far away from power lines.

Roof: Your roof is the most vulnerable part of your home because it can easily catch fire from wind-blown embers. Homes with wood-shake or wood shingle roofs are at high risk of being destroyed during a wildfire.

Build your roof or re-roof with fire-resistant materials such as composition, metal or tile. Block any spaces between roof decking and covering to prevent ember intrusion.

Clear pine needles, leaves and other debris from your roof and gutters.

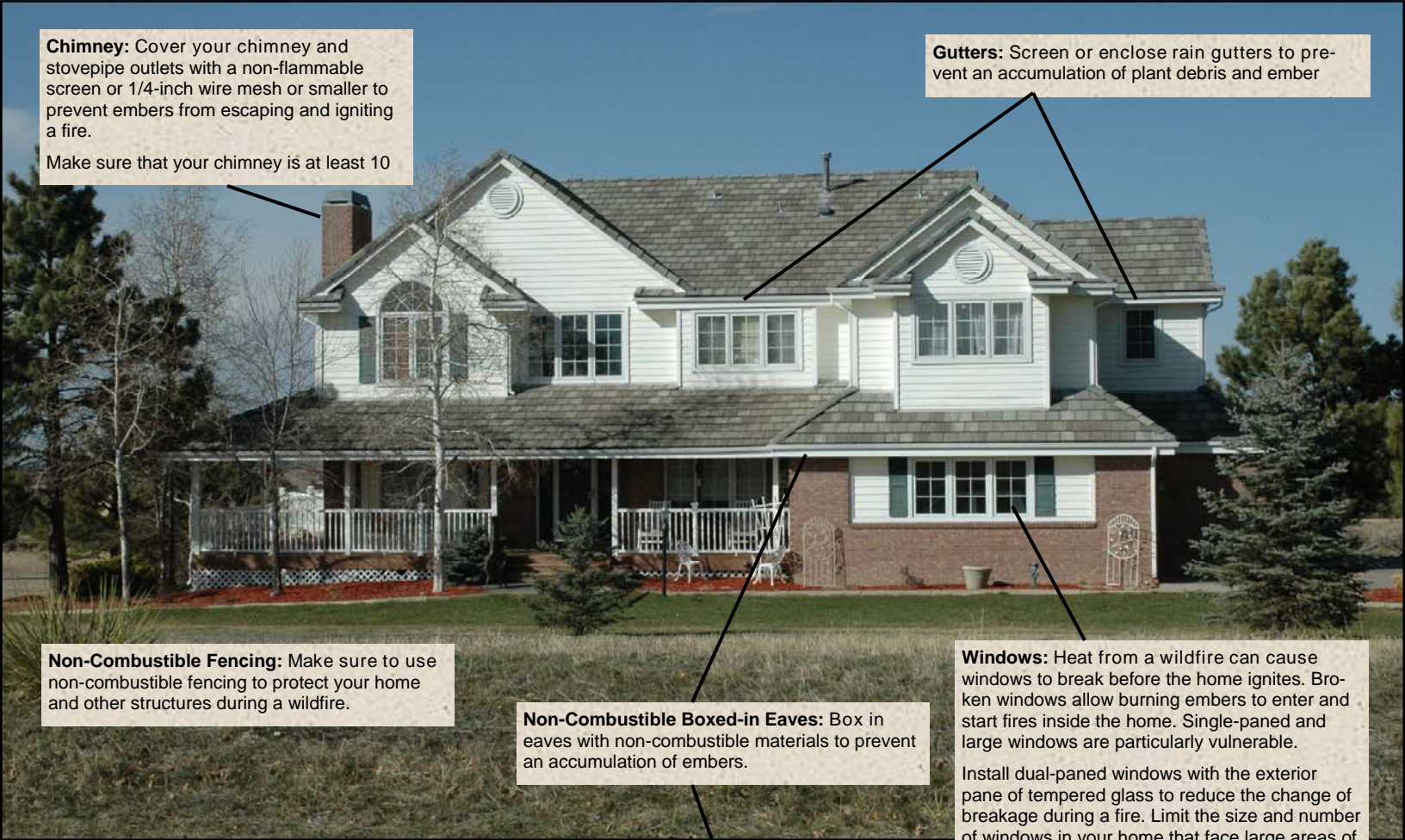
Cut any tree branches within 10 feet of your roof.

Address: Post your address with 4" reflective numbers that can be seen from the road in all weather conditions.

Chimney: Cover your chimney and stovepipe outlets with a non-flammable screen or 1/4-inch wire mesh or smaller to prevent embers from escaping and igniting a fire.

Make sure that your chimney is at least 10

Gutters: Screen or enclose rain gutters to prevent an accumulation of plant debris and ember



Non-Combustible Fencing: Make sure to use non-combustible fencing to protect your home and other structures during a wildfire.

Non-Combustible Boxed-in Eaves: Box in eaves with non-combustible materials to prevent an accumulation of embers.

Windows: Heat from a wildfire can cause windows to break before the home ignites. Broken windows allow burning embers to enter and start fires inside the home. Single-paned and large windows are particularly vulnerable.

Install dual-paned windows with the exterior pane of tempered glass to reduce the change of breakage during a fire. Limit the size and number of windows in your home that face large areas of vegetation because windows also allow radiant heat to pass into the home to ignite combustible materials such as curtains and upholstery.



Walls: Wood products, such as boards, panels or shingles, are common siding materials. However, they are combustible and not good choices for fire-prone areas.

Build or remodel with fire-resistant building materials such as brick, cement, masonry or stucco. Be sure to

Water Supply: Have multiple garden hoses that are long enough to reach any area of your home and other structures on your property.

If you have a pool or well, consider installing a pump.

Inside: Keep working fire extinguishers on hand in accessible locations.

Install smoke alarms on each level of your home and near bedrooms. Test them monthly and change the batteries each year.

When remodeling, install residential sprinklers in your home and maintain the system as suggested by the installer.

READY, SET, GO!

Create Your Own Wildfire Action Plan

Now that you've done everything you can to protect your house, it's time to prepare your family. Your **Wildfire Action Plan** must be prepared with all members of your household well in advance of a fire.

Use these checklists to help you prepare your Wildfire Action Plan. Each family's plan will be different, depending on their situation.

Once you finish your plan, rehearse it regularly with your family and keep it in a safe and accessible place for quick implementation.

GET READY | Prepare Your Family



- Create a **Family Disaster Plan** that includes meeting locations and communication plans and rehearse it regularly. Include in your plan the evacuation of large animals such as horses.
- Have fire extinguishers on hand and train your family how to use them.
- Ensure that your family knows where your gas, electric and water main shut-off controls are and how to use them.
- Plan several different evacuation routes.
- Designate an emergency meeting location outside the fire hazard area.
- Assemble an emergency supply kit as recommended by the American Red Cross.
- Appoint an out-of-area friend or relative as a point of contact so you can communicate with family members who have relocated.
- Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.
- Keep an extra emergency supply kit in your car in case you can't get to your home because of fire.
- Have a portable radio or scanner so you can stay updated on the fire.

GET SET | As the Fire Approaches

- Evacuate as soon as you are set!
- Alert family and neighbors.
- Dress in appropriate clothing (i.e., clothing made from natural fibers, such as cotton, and work boots). Have goggles and a dry bandana or particle mask handy.
- Ensure that you have your emergency supply kit on hand that includes all necessary items, such as a battery powered radio, spare batteries, emergency contact numbers, and ample drinking water.
- Stay tuned to your TV or local radio stations for updates, or check the fire department Web site.
- Remain close to your house, drink plenty of water and keep an eye on your family and pets until you are ready to leave.

INSIDE CHECKLIST

- Shut all windows and doors, leaving them unlocked.
- Remove flammable window shades and curtains and close metal shutters.
- Remove lightweight curtains.
- Move flammable furniture to the center of the room, away from windows and doors.
- Shut off gas at the meter. Turn off pilot lights.
- Leave your lights on so firefighters can see your house under smoky conditions.
- Shut off the air conditioning.

OUTSIDE CHECKLIST

- Gather up flammable items from the exterior of the house and bring them inside (e.g., patio furniture, children's toys, door mats, etc.) or place them in your pool.
- Turn off propane tanks.
- Don't leave sprinklers on or water running - they can waste critical water pressure.
- Leave exterior lights on.
- Back your car into the driveway. Shut doors and roll up windows.
- Have a ladder available.
- Patrol your property and extinguish all small fires until you leave.
- Seal attic and ground vents with pre-cut plywood or commercial seals if time permits.

IF YOU ARE TRAPPED: SURVIVAL TIPS

- Shelter away from outside walls.
- Bring garden hoses inside house so embers don't destroy them.
- Patrol inside your home for spot fires and extinguish them.
- Wear long sleeves and long pants made of natural fibers such as cotton.
- Stay hydrated.
- Ensure you can exit the home if it catches fire (remember if it's hot inside the house, it is four to five times hotter outside).

- Fill sinks and tubs for an emergency water supply.
- Place wet towels under doors to keep smoke and embers out.
- After the fire has passed, check your roof and extinguish any fires, sparks or embers.
- Check inside the attic for hidden embers.
- Patrol your property and extinguish small fires.
- If there are fires that you can not extinguish with a small amount of water or in a short period of time, call 9-1-1.



Go! | *Early!*

By leaving early, you give your family the best chance of surviving a wildfire. You also help firefighters by keeping roads clear of congestion, enabling them to move more freely and do their job.

WHEN TO LEAVE

Leave early enough to avoid being caught in fire, smoke or road congestion. Don't wait to be told by authorities to leave. In an intense wildfire, they may not have time to knock on every door. If you are advised to leave, don't hesitate!

WHERE TO GO

Leave to a predetermined location (it should be a low-risk area, such as a well-prepared neighbor or relative's house, a Red Cross shelter or evacuation center, motel, etc.)

HOW TO GET THERE

Have several travel routes in case one route is blocked by the fire or by emergency vehicles and equipment. Choose an escape route away from the fire.

WHAT TO TAKE

Take your emergency supply kit containing your family and pet's necessary items.



EMERGENCY SUPPLIES

The American Red Cross recommends every family have an emergency supply kit assembled long before a wildfire or other emergency occurs. Use the checklist below to help assemble yours. For more information on emergency supplies, visit the American Red Cross Web site at www.redcross.org.

- Three-day supply of water (one gallon per person per day).
- Non-perishable food for all family members and pets (three-day supply).
- First aid kit.
- Flashlight, battery-powered radio, and extra batteries.
- An extra set of car keys, credit cards, cash or traveler's checks.
- Sanitation supplies.
- Extra eyeglasses or contact lenses.
- Important family documents and contact numbers.
- Map marked with evacuation routes.
- Prescriptions or special medications.
- Family photos and other irreplaceable items.
- Easily carried valuables.
- Personal computers (information on hard drives and disks).
- Chargers for cell phones, laptops, etc.

Note: Keep a pair of old shoes and a flashlight handy in case of a sudden evacuation at night.



Write up your Wildfire Action Plan and post it in a location where every member of your family can see it. Rehearse it with your family.

My Personal Wildfire Action Plan

During High Fire Danger days in your area, monitor your local media for information on brush fires and be ready to implement your plan. Hot, dry and windy conditions create the perfect environment for a wildfire.

Important Phone Numbers:

Out-of-State Contact: _____ Phone: _____

Work: _____

School: _____

Other: _____

Evacuation Routes: _____

Where to go: _____

Location of Emergency Supply Kit: _____

Notes: _____

Colorado's Partners in Wildfire Prevention & Safety



**If you have an emergency,
Call 911**

Tax credit available for mitigation work

As authorized by §39-22-104(4)(n), C.R.S., for income tax years 2014 through 2025 individuals, estates and trusts may subtract from federal taxable income 50% of the costs incurred in performing wildfire mitigation measures that meet the following qualifications and limitations:

- The taxpayer must own the property upon which the wildfire mitigation measures are performed.
- The property upon which the wildfire mitigation measures are performed must be located in Colorado.
- The property upon which the wildfire mitigation measures are performed must be located in a wildland-urban interface area.
- The total amount of the subtraction may not exceed \$2,500.

Before conducting this work, homeowners are encouraged to contact South Metro Fire Rescue at LifeSafetyEducation@southmetro.org or 720-989-2271 for updated mitigation standards based on local best practices and evidence-based science. The Colorado State Forest Service has immense resources for educating homeowners about defensible space and other forms of mitigation as well. Visit the CSFS website at www.csfs.colostate.edu.

Costs

Costs include any actual out-of-pocket expense incurred and paid by the landowner and documented by receipt for performing wildfire miti-



gation measures. The following expenses are specifically excluded within statute and do not qualify for this subtraction:

- Inspection or certification fees;
- In-kind contributions;
- Donations;
- Incentives;
- Cost sharing;

Wildfire mitigation measures include the following activities to the extent that they meet or exceed any Colorado State Forest Service standards or any other applicable state rules:

- Creating and maintaining a defensible space around structures;
- Establishing fuel breaks;
- Thinning of woody vegetation for the primary purpose of reducing risk to structures from wildland fire;
- Secondary treatment of woody fuels by lopping and scattering, piling, chipping, removing from the site or prescribed burning.

For information regarding these and other wildfire mitigation measures, visit www.csfs.colostate.edu; for information about the tax credit, check www.taxcolorado.com.

